

AMENDED CLAIMS

[Received by the International Bureau on 27 October 2004 (27.10.04):
original claims 1-11 unchanged,
new claims 12-17 added (2 pages)]

12. A deflection apparatus, comprising:

a cathode ray tube having a faceplate panel with a short axis and a long axis, the faceplate panel having a display screen on the inside of the panel and the panel extending back to a funnel which houses an electron gun system within an integral neck for producing co-planar beams, the electron gun system being arranged in a linear array which is parallel to a short axis of the screen;

5 a horizontal deflection coil for generating a horizontal deflection field having a substantially barrel shaped field non-uniformity for scanning the beams in the direction of the long axis and a vertical deflection coil for generating a vertical deflection field having a substantially pincushioned shaped field non-uniformity for scanning the beams in the direction of the short axis, the field non-uniformity of at 10 least one of said deflection fields being selected to provide a beam spot correction instead of providing a further misconvergence error correction; and

15 a third deflection coil for generating a third deflection field having a field non-uniformity selected to correct at least a portion of the misconvergence error left uncorrected by said one deflection field.

13. The deflection apparatus according to claim 12 wherein said third deflection coil generates a quadrupolar magnetic field.

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14. The deflection apparatus according to claim 12, further comprising a fourth deflection coil, wherein said third and fourth deflection coils are arranged approximately 90 degrees from each other and positioned

approximately at the dynamic astigmatism correction point of the electron gun system.

15. The deflection apparatus according to claim 12, wherein said third deflection coil is dynamically controlled.

16. The deflection apparatus according to claim 12, wherein said third deflection coil is driven at the horizontal deflection rate.

17. The deflection apparatus according to claim 12, wherein the misconvergence error is an overconvergence outer ones of the electron beams.